Inland Hospital	**)**	**Departmental**
Kennebec County	**)**	**Findings of Fact and Order**
Waterville, Maine	**)**	**Air Emission License**
A-110-71-I-N	**)**	**After-The-Fact**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Inland Hospital of Waterville, Maine last renewed the facility's Air Emission License on July 2, 2002 (A-110-71-H-R). This permit expired on July 2, 2007.

2. Inland Hospital has applied to renew their Air Emission License, after the fact, permitting the operation of emission sources associated with their health care facility.

B. Emission Equipment

Inland Hospital is authorized to operate the following equipment:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Stack #
Boiler #1	5.3	35	#4 fuel oil, 1.0%	1
Boiler #2	5.3	35	#4 fuel oil, 1.0%	1
Boiler #3	3.3	22	#4 fuel oil, 1.0%	1

Electrical Generation Equipment

Equipment	Power Output (kW)	Fuel Type, % Sulfur	Maximum Firing Rate (gal/hr)	Pollution Controls Equipment
Diesel Generator #1	360 kW	Diesel fuel, 0.05%	25.6 gal/hr	None

C. Application Classification

Inland Hospital's previous Air Emission License expired on July 2, 2007. A complete application was not submitted on time, therefore Inland Hospital is considered to be an existing source applying for an after-the-fact renewal. The Department has determined the facility is a minor source and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 1, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new or after the fact units requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boiler Units

Inland Hospital operates Boilers #1, #2 and #3 primarily for facility heat and hot water. Boilers #1, #2 and #3 have maximum design heat input capacities of 5.3, 5.3 and 3.3 MMBtu/hr respectively, firing #4 fuel oil. All three boilers exhaust through a common stack, designated Stack #1. All three boilers have maximum heat input capacities below the applicability threshold and are therefore not subject to EPA New Source Performance Standards (NSPS) 40 CFR Subpart Dc, for boilers with a heat input of 10 MMBtu/hr or greater and manufactured after June 9, 1989.

Inland Hospital's previous Air Emission License restricted the facility to an annual fuel use limit of 200,000 gallons per year based on a twelve-month rolling total. Inland Hospital has not requested a change in the fuel limit, therefore Inland Hospital shall continue to be restricted to firing no greater than 200,000 gallons of #4 fuel oil in the facility's boiler units, based on a twelve-month rolling total. Inland Hospital's previous Air Emission License restricted the facility to the use of #4 fuel oil with a sulfur content of no greater than 1.5% sulfur by weight. Inland Hospital applied for the facility's Air Emission License renewal after the fact, therefore a BACT was required. BACT requires that the #4 fuel oil fired in the facility's boilers have a maximum percent sulfur content of no greater than 1.0% sulfur by weight.

A summary of the BPT analysis for boilers #1 (5.3 MMBtu/hr), #2 (5.3 MMBtu/hr) and #3 (3.3 MMBtu/hr) is as follows:

1. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103, (last amended November 3, 1990) regulates PM emission limits. The PM emission limit for each boiler is 0.2 lb/MMBtu. PM_{10} emission limits are derived from PM limits.
2. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended July 4, 1999) regulates fuel sulfur content for liquid fossil fuels. However, the use of #4 fuel oil with a sulfur content of no greater than 1.0% sulfur by weight is a stricter standard and shall be considered BACT.
3. NO_x emission limits are based on data from similar #4 fired boilers of this size and age.
4. CO and VOC emission limits are based upon AP-42 data dated 9/98.
5. Visible emissions from the boilers are subject to *Visible Emissions Regulation*, 06-096 CMR 101 (last amended May 18, 2003). Visible emissions from common Stack #1 shall not exceed 30% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

C. Diesel Generator #1

Inland Hospital operates a back-up generator, designated Diesel Generator #1, for emergency electrical needs. Diesel Generator #1 has an approximate maximum design heat input capacity of 3.6 MMBtu/hr firing diesel fuel. Back-up generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Back-up generators are not to be used for prime power when reliable offsite power is available. By definition, a generator used for load shedding purposes (also known as a "Dispachable Load Generator") is <u>not</u> considered an "Emergency Generator".

Inland Hospital has a licensed operational limit on Diesel Generator #1 of 500 hours of operation per year based on a twelve-month rolling total. Diesel Generator #1 will be operated only when normal testing procedures, as recommended by the manufacturer, are being performed or in case of an emergency as defined in 06-096 CMR 100. To demonstrate compliance with hours of operation limits on Diesel Generator #1, Inland Hospital shall continue to operate and maintain an hour meter on Diesel Generator #1. Inland Hospital shall also maintain a log of operation of Diesel Generator #1 which shall include fuel purchase receipts, hours of operation, dates of operation and reason for operation.

The Diesel Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.

A summary of the BACT analysis Diesel Generator #1 is as follows:

1. *Low Sulfur Fuel* 06-096 CMR 106 (last amended July 4, 1999) regulates fuel sulfur content, however in this case a BPT analysis for SO_2 determined a more stringent limit of 0.05% was appropriate and shall be used.
2. *Fuel Burning Equipment Particulate Emission Standard* 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM_{10} limits are derived from the PM limits.
3. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
4. Visible emissions from Diesel Generator #1 are subject to 06-096 CMR 101. Visible emissions from the Diesel Generator #1 stack shall not exceed 20% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

D. Annual Emission Restrictions

Inland Hospital shall be restricted to the following annual emissions, based on a 12 month rolling total:

- Total annual #4 fuel oil usage for the facility shall not exceed 200,000 gallons of #4 fuel oil per year with a sulfur content not to exceed 1.0% sulfur by weight based on a twelve month rolling total.

- Total annual Diesel Generator #1 usage shall not exceed 500 hours per year based on a twelve month rolling total firing diesel fuel oil with a percent sulfur of no greater than 0.05% by weight.

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	3.1
PM_{10}	3.1
SO_2	15.8
NO_x	11.4
CO	1.3
VOC	0.4

III. AMBIENT AIR QUALITY ANALYSIS

According to *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 1, 2005), the level of air quality analyses required for a minor source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. Based on the above total facility emissions, Inland Hospital is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-110-71-I-N subject the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 CMR 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
b. pursuant to any other requirement of this license to perform stack testing.

(ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(iii) submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

(iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions. [06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) Boilers #1, #2 and #3

A. Total annual facility #4 fuel oil usage shall not exceed 200,000 gallons/yr based on a twelve-month rolling total. The #4 fuel oil fired in the boilers shall have a maximum sulfur content of no greater 1.0% by weight. [06-096 CMR 115, BACT]

B. Inland Hospital shall maintain a fuel use log that shows the twelve-month rolling total fuel use and includes fuel purchase receipts indicating fuel purchase dates, fuel purchase amounts and fuel sulfur content. [06-096 CMR 115, BACT]

C. Emissions from the boilers shall not exceed the following:

Equipment		PM	PM_{10}	SO_2	NO_x	CO	VOC
Boiler #1	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	1.1	1.1	5.6	2.7	0.2	0.04
Boiler #2	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	1.1	1.1	5.6	2.7	0.2	0.04
Boiler #3	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	0.7	0.7	3.5	1.7	0.1	0.02

[06-096 CMR 115, BACT]

D. Visible emissions from combined stack #1 shall not exceed 30% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period. [06-096 CMR 101,]

(17) Diesel Generator #1

A. Diesel Generator #1 shall be limited to the use of diesel fuel oil with a maximum percent sulfur content not to exceed 0.05% by weight. Compliance for sulfur content shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and percent sulfur of the fuel. [06-096 CMR 115, BPT]

B. Diesel Generator #1 shall be limited to 500 hours per year of operation, based on a twelve-month rolling total. To demonstrate compliance to this condition, Inland Hospital shall continue to maintain an hour meter on Diesel Generator #1 and operate the hour meter at all times that Diesel Generator #1 is in operation.[06-096 CMR 115, BPT]

C. Diesel Generator #1 shall be operated only when normal testing procedures, as recommended by the manufacturer, are being performed or for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. [06-096 CMR 115, BPT]

D. Inland Hospital shall also maintain a log of operation of Diesel Generator #1 which shall include fuel purchase receipts, hours of operation, dates of operation and reason for operation. [06-096 CMR 115, BPT]

E. Emissions from Generator #1 shall not exceed the following:

Equipment		PM	PM_{10}	SO_2	NO_x	CO	VOC
Diesel Generator #1	lb/hr	0.4	0.4	0.2	15.5	3.3	1.2

[06-096 CMR 115, BPT]

F. Visible emissions from the Diesel Generator #1 stack shall not exceed 20% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period. [06-096 CMR 101]

(18) Inland Hospital shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above

Date of initial receipt of application: **October17, 2007**
Date of application acceptance: **October 25, 2007**

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality